

# Cofra



*cutoffs*

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**Building worldwide on our strength**



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Vertical plastic barriers are used for both environmental and civil projects. Cofra has many years experience in the manufacture and installation of Geolock barriers. With Geolock, Cofra has realised projects in Europe, North America and Asia. Geolock is used for the isolation of existing waste disposal sites and the waterproofing of dikes, dams and motorways in cuttings. Geolock has an infinite number of applications and is competitive with traditional materials. Wherever a horizontal underground flow of groundwater, contaminated or otherwise, has to be blocked, Geolock offers the optimal watertight solution.

## Installation of Geolock barriers in trench



Abcoude, The Netherlands



## The Geolock technique

Geolock is a plastic waterproof barrier consisting of a patented lock construction made of extruded HDPE with an HDPE 2.0 mm membrane welded to it. This lock construction guarantees optimal waterproofing, thus preventing the leakage of groundwater, contaminated or otherwise. Geolock is not only suitable for the isolation of contaminated soil, it can also be used in numerous other waterproofing (seepage) constructions in civil engineering.

## Why Geolock?

The clean-up of contaminated soil is very expensive and not always technically feasible. Removal or in-situ cleaning is often not the most attractive solution in the case of larger areas. An alternative in this case is the encapsulation of the contaminated soil, so that the contamination cannot spread any further. Partially in response to this problem, Cofra B.V. developed the Geolock system.

## Installation of the Geolock system

Geolock can be installed with the aid of a steel plate that drives the panels to the correct depth by means of a vibrating block. The system is only suitable for installation at a shallow depth in a relatively soft subsoil. In the case of installation at greater depths a Bentonite wall is always constructed first in which the Geolock screen can be installed. The advantage of this method is that installation is possible in almost every type of soil and to a deeper depth.



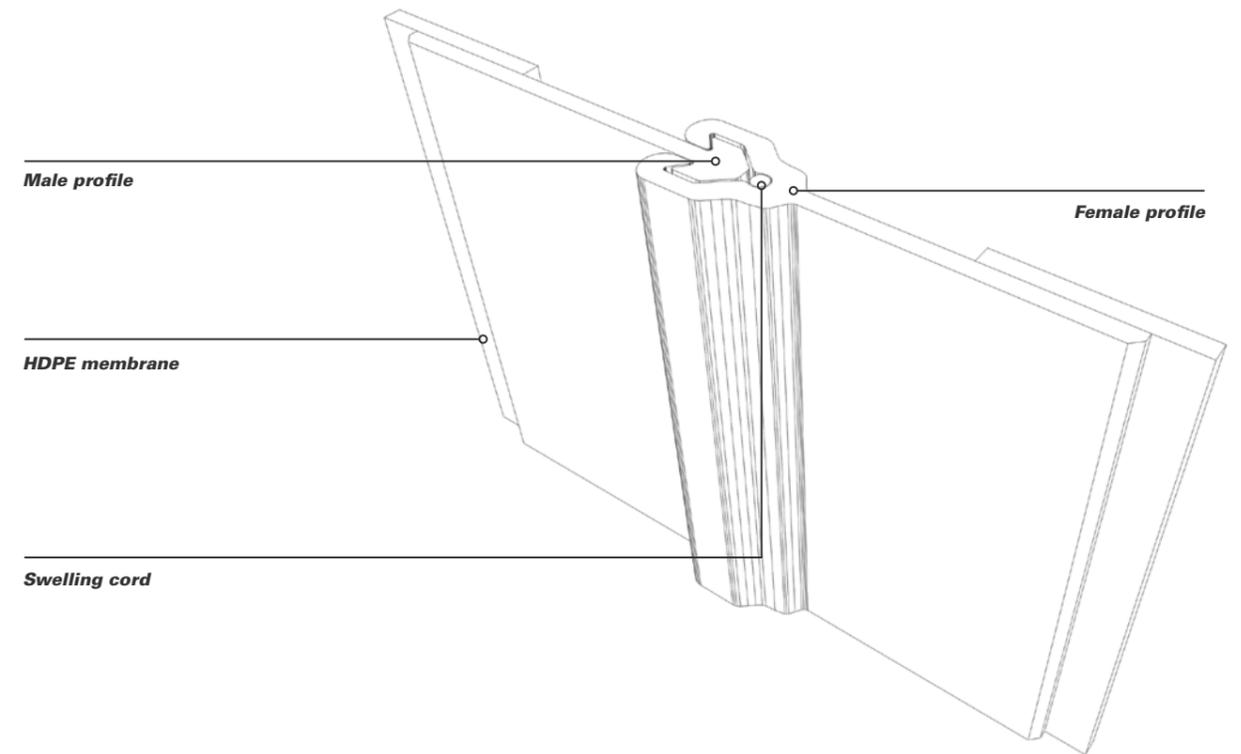
*Installation of Geolock in Kokkola, Finland*

**Applications of the Geolock technique include:**

- > Vertical isolation of contaminated soil
- > Waterproof construction in civil engineering
- > Gasproof barrier in the (case of lower groundwater levels)

**Advantages of the Geolock system:**

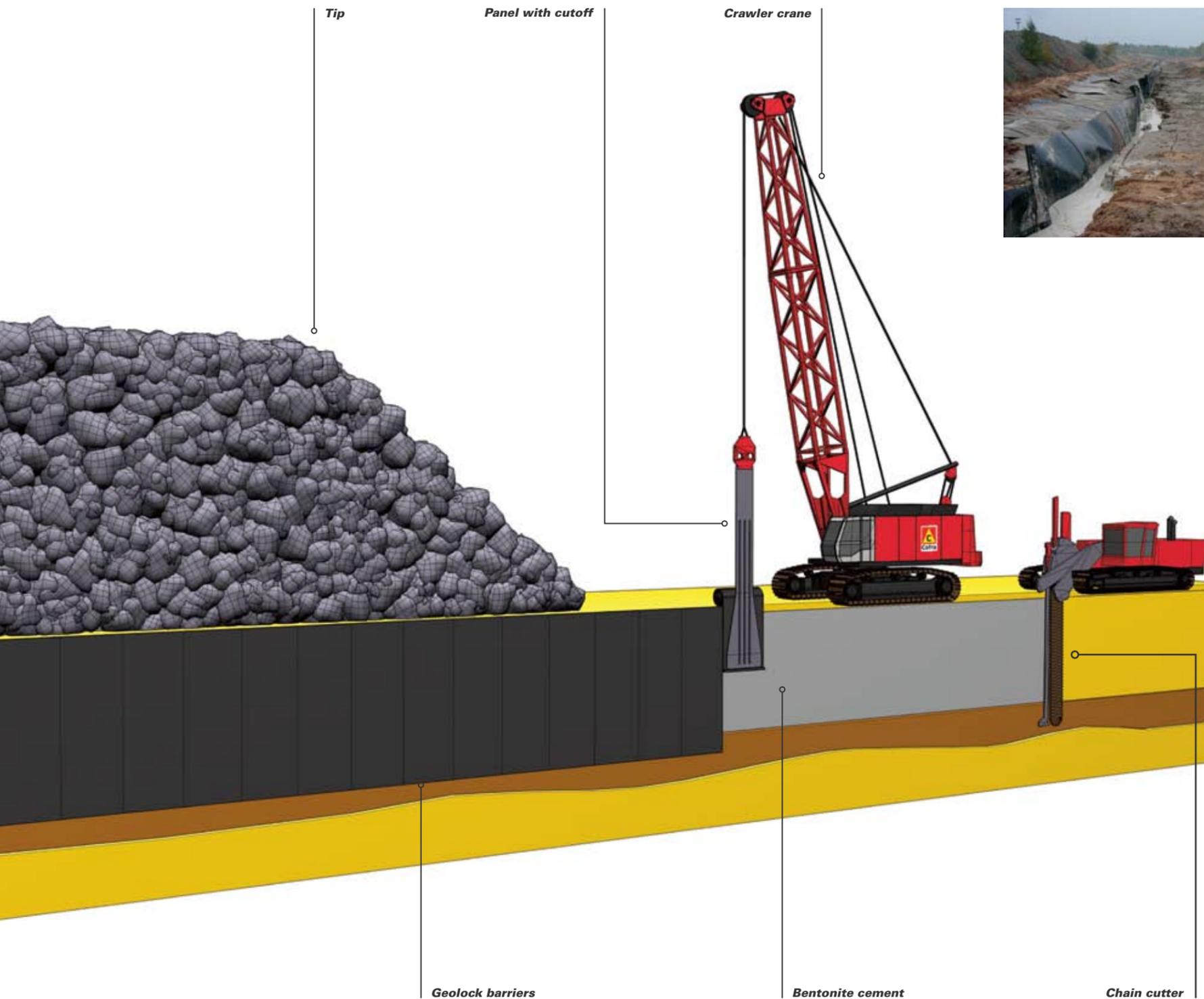
- > Fully waterproof and/or gastight, even on the underside
- > Flexibility in connection with possible settlement of the soil
- > Suitable for installation in all soil types
- > Crack resistant
- > Chemically resistant
- > Long service life
- > Suitable for installation up to a depth of 40 metres



*Amersfoort waste disposal site*



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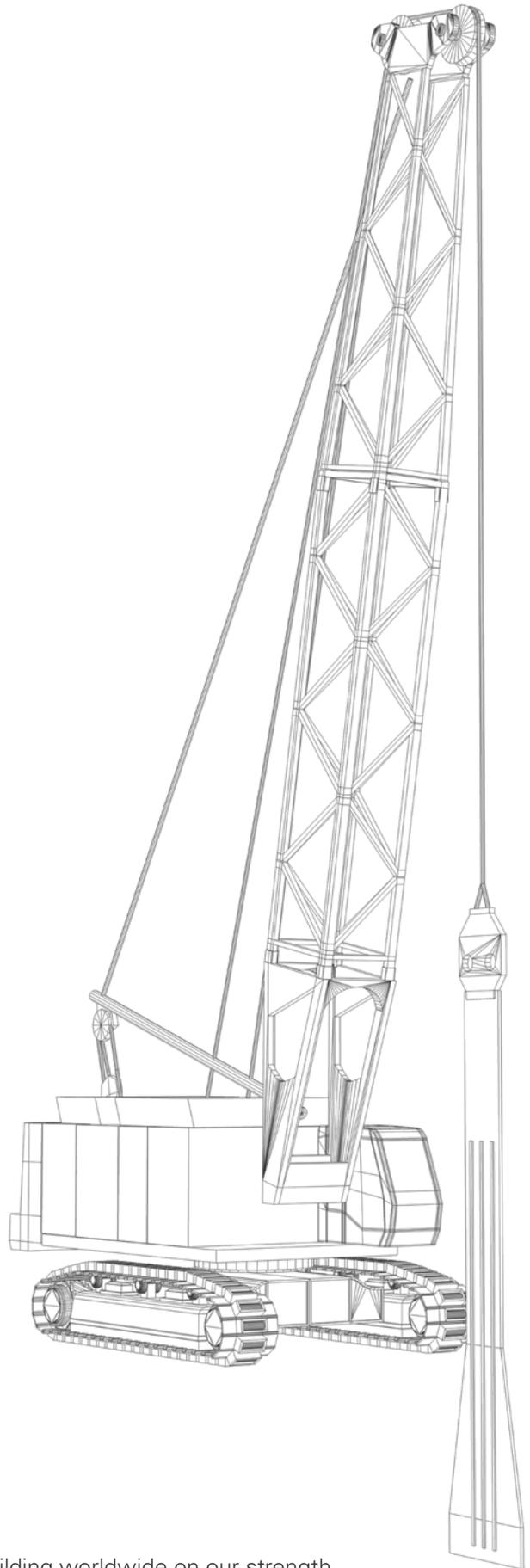
### Cofra

Cofra B.V. is an innovative contractor specialising in ground improvement techniques and membrane construction. Quality is everything to us and thanks to our high level of experience and expertise we can provide the entire process from design to implementation all under one roof. Cofra, and, its sister company Geotechnics, is part of the internationally operating company Royal Boskalis Westminster. Cofra is active in specific sectors of civil engineering, ground improvement techniques and geotechnical hydraulic and gas barriers. Cofra is always working on the development of new ground improvement techniques.

Other Cofra techniques:

- > AuGeo
- > HDPE seals
- > BeauDrain(-S)
- > Vertical drainage
- > CDC

You can find further information about the Geolock technique and other Cofra techniques on our website [www.cofra.com](http://www.cofra.com).



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